



Overview of Protected Areas Management in Nepal



Hari Bhadra Acharya
Under Secretary

Department of National Parks and Wildlife Conservation, Nepal

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Contents

- **History of Protected Area**
- **Categories of PA**
- **Glimpse of ongoing programs**
- **Challenges**
- **Ways Forward**

Historical Background

1958: Wildlife Conservation Act (establishment of “rhino Patrol”)

1973: National Parks and Wildlife Conservation Act (Wildlife Section in Department of Forest)

1974: National Park and Wildlife Conservation Regulation placed restriction on use of resources in lowland

1979: Mountain National Park Regulation provided right to local community on use of forest resources

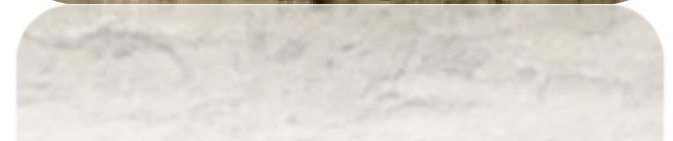
1980: Established of Department of National Parks and Wildlife Conservation



Objectives



- ❖ **Conserve and manage ecological system, wildlife, and their habitat**
- ❖ **Promote ecotourism without any negative consequences**



Biodiversity in Nepal

- Nepal- 0.1 percent of the global area
- 12 of the 867 global terrestrial ecoregions
- 118 ecosystem
- 35 forest types

Species Diversity

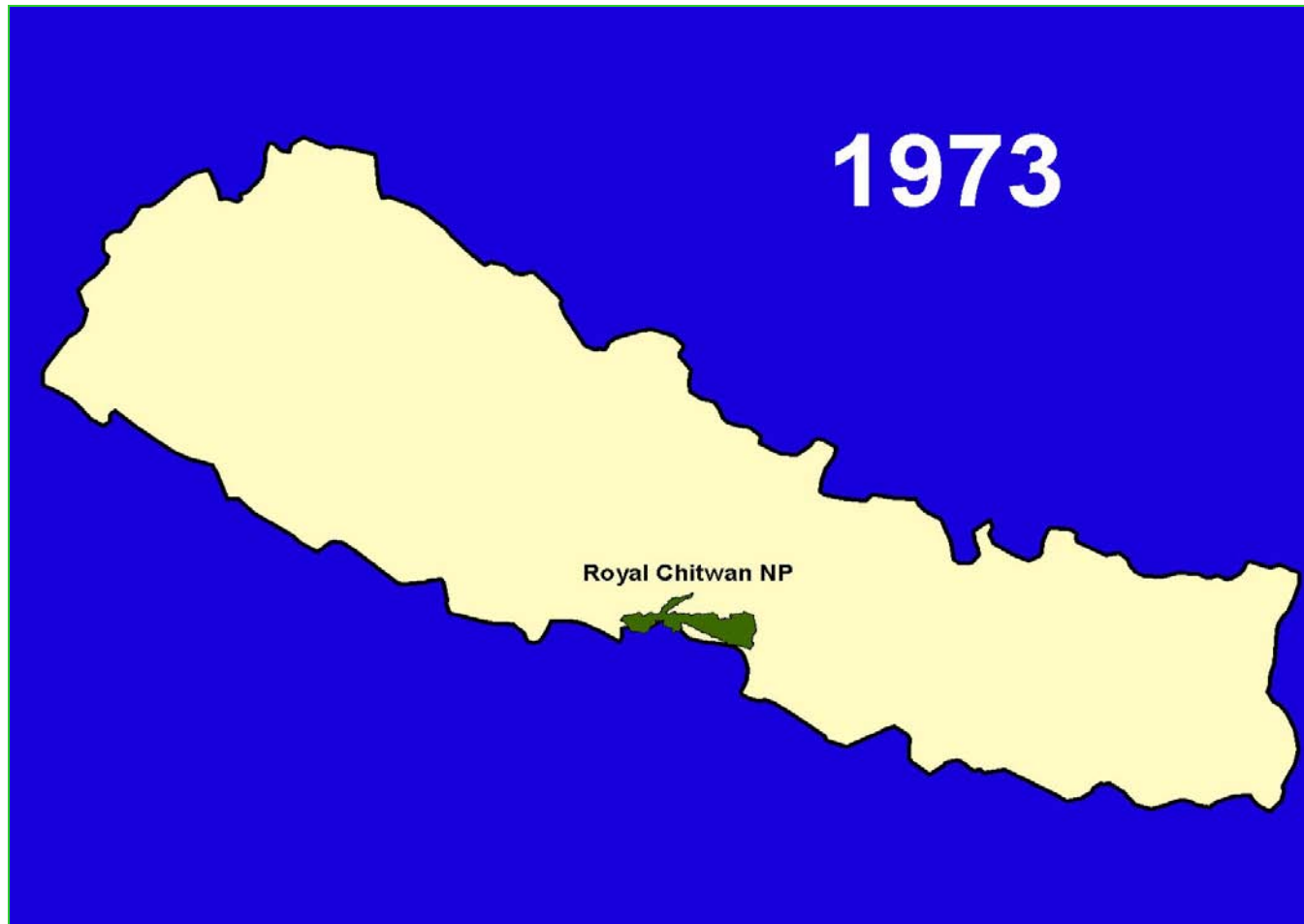
Floral	No. of Known Species	Percentage of World's Species
Angiosperms	6,973	3.2
Gymnosperms	26	5.1
Pteridophytes	534	5.1
Bryophytes	1,150	8.2
Lichens	771	4.5
Fungi	2,025	2.9
Algae	1001	2.5
Total	12,480	3.3

Fauna	No. of Known Species	Percentage of World's Species
Mammals	208	5.2
Birds	867	9.5
Reptiles	123	1.9
Amphibians	118	2.5
Fishes	230	1.9
Molluscs	79	N/A
Moths	3,958	3.6
Butterflies	651	3.7
Spiders	175	0.4
Rotifers	61	N/A
Crustaceans	59	N/A
Other Insects	5,052	0.7
Platyhelminthes	168	1.4
Fauna Total	11,706	1.1

First Protected Area

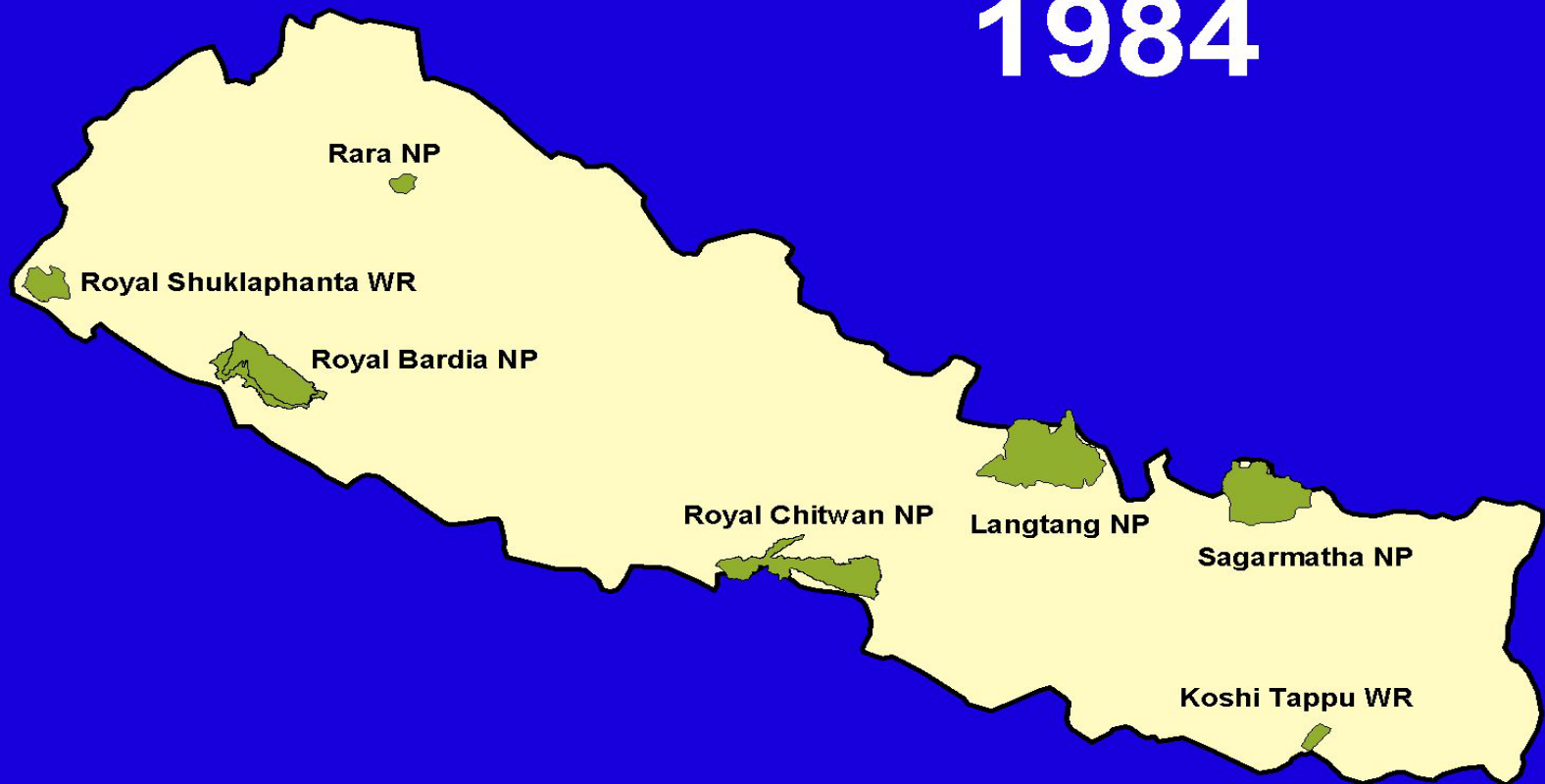
1973

Chitwan National Park

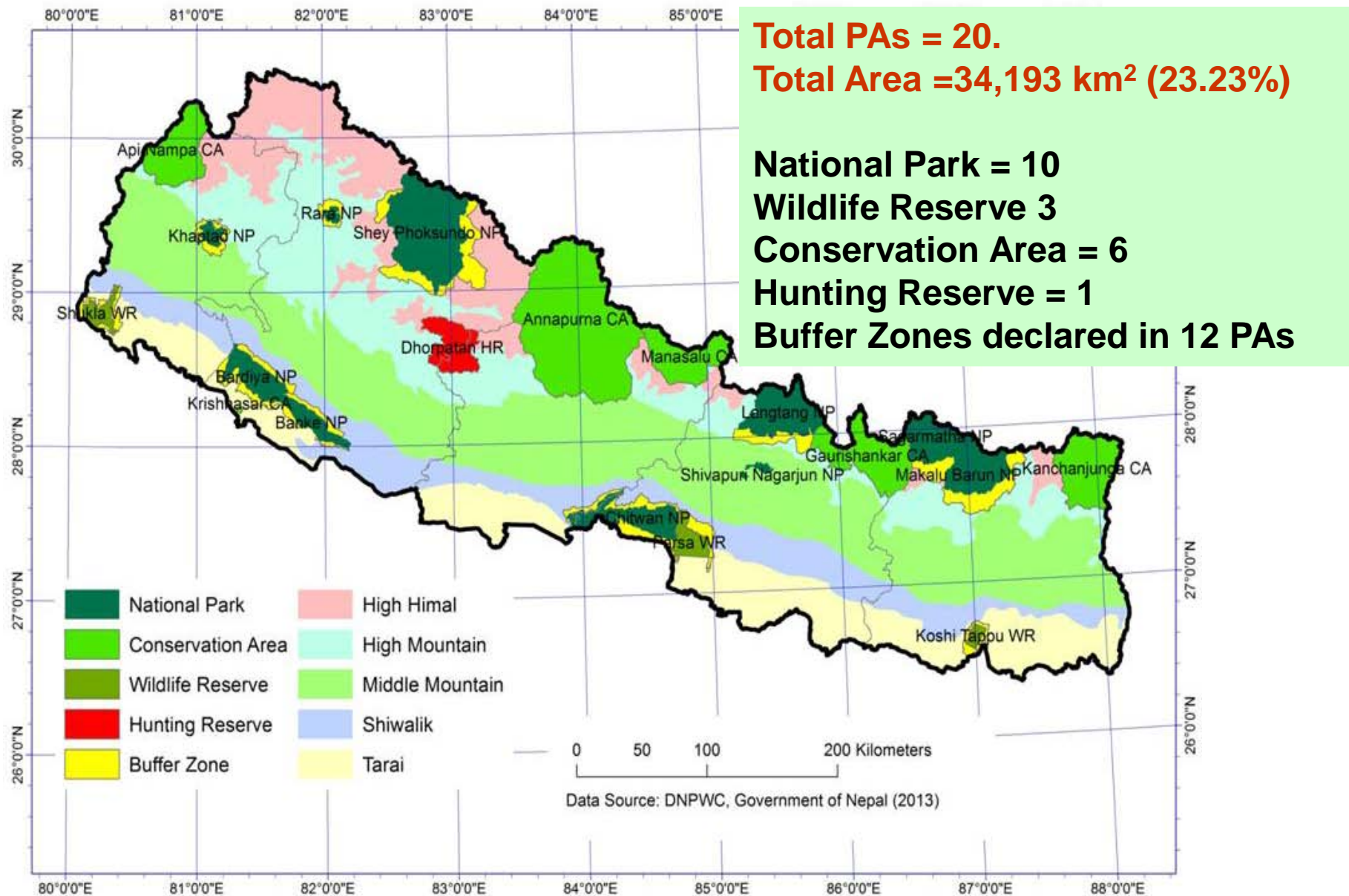


Progress

1984



Protected Areas of Nepal



Achieved Aichi Target 11 in Nepal

Total Area under PA is 34,193 km² (23.23% of the landmass of Nepal)

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.

Biodiversity Conservation outside PA

Community Forest

- 18,133 CFUGs, 17,000 sq. km.

Leasehold Forest

- 7413 Households, 427.73 sq. km.

Protection Forest

- 8 No., 1337.55 square km.

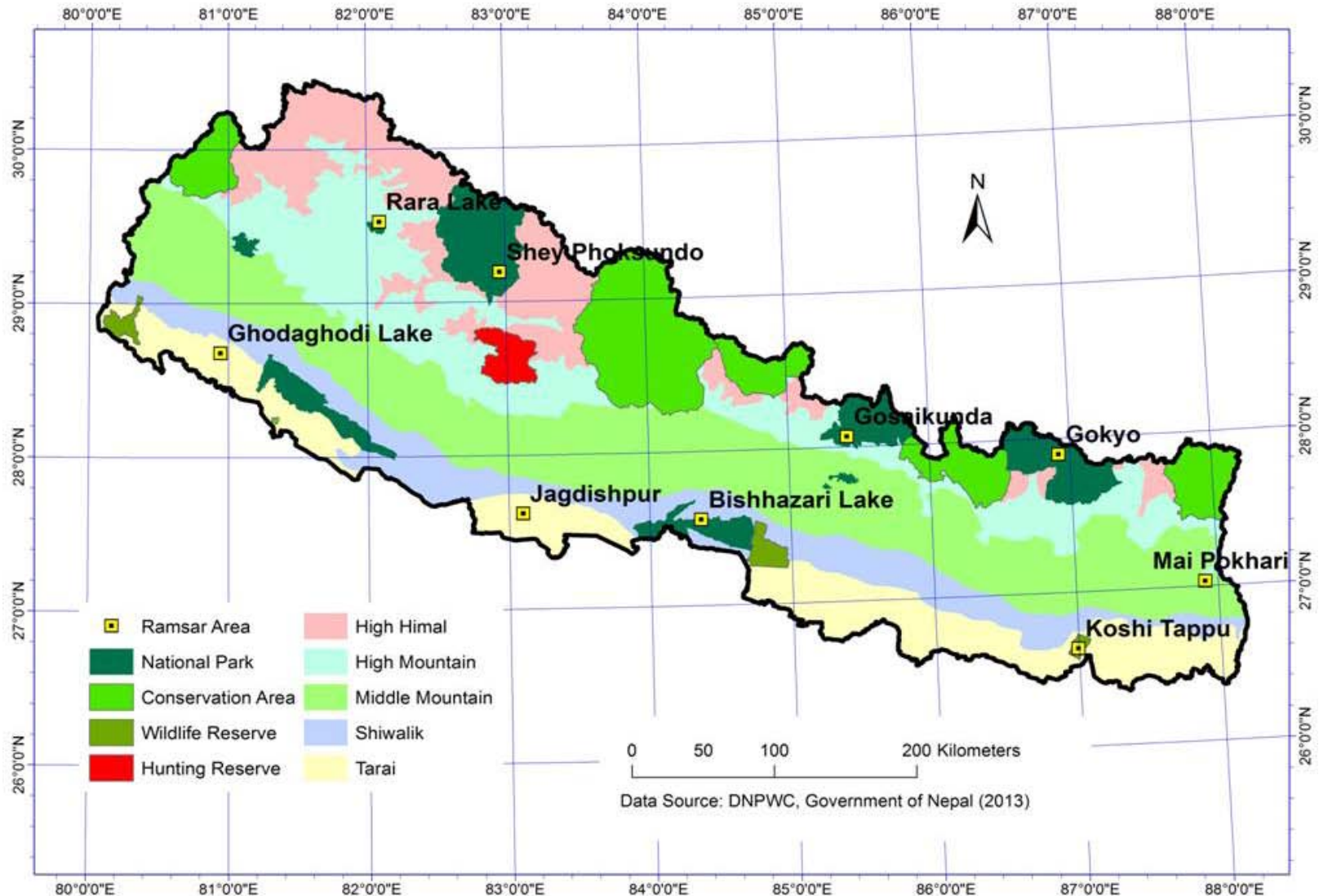
Collaborative Forest

- 19 No., 226.06 sq. km.

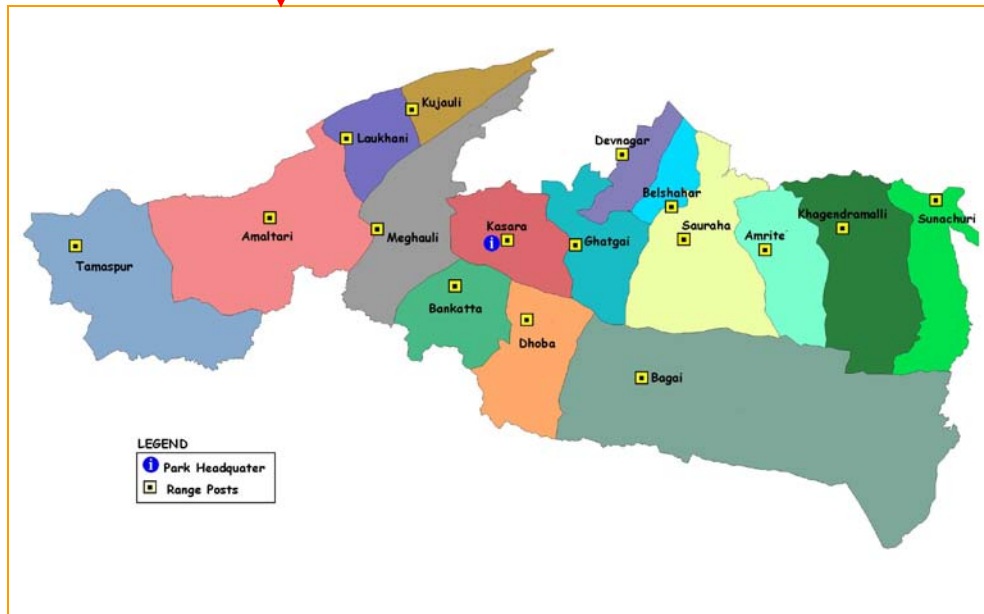
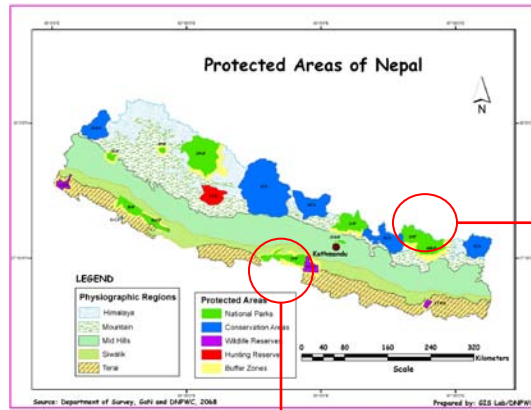
Corridor and connectivity

- 3 corridors are identified as important for mobility of mega fauna

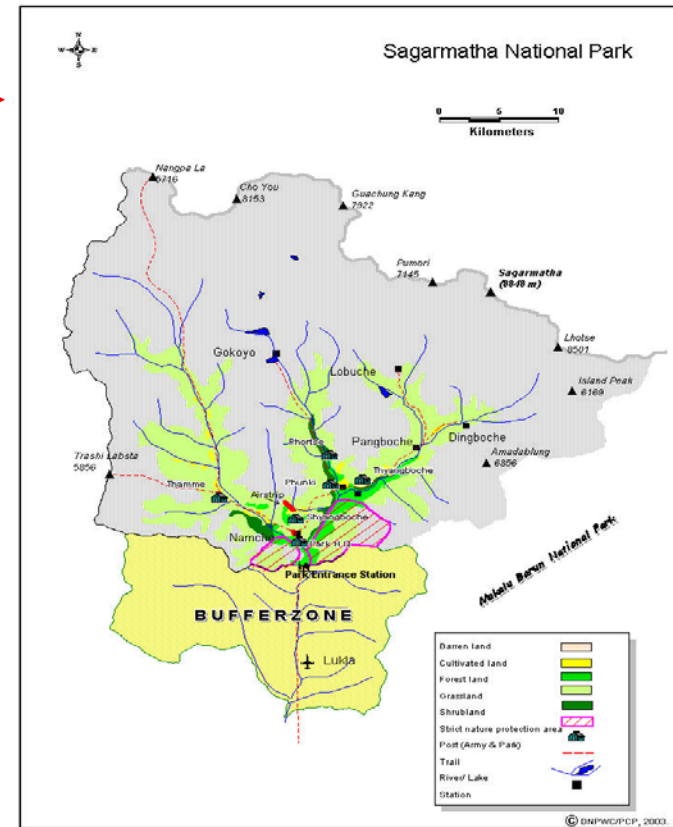
Ramsar Sites (Nine)



Natural World Heritage Sites (Two NP)



Chitwan National Park-1981



Sagarmatha National Park-1979

Policies, Strategies and Laws

Policies:

- ❖ Wetland Policy-2003
- ❖ Wildlife Farming and Research Policy-2003
- ❖ Domestic Elephant Management Policy-2003
- ❖ Construction of Infrastructure Inside the Protected Area Policy 2003
- ❖ Compensation to Wildlife Victim Policy 2013

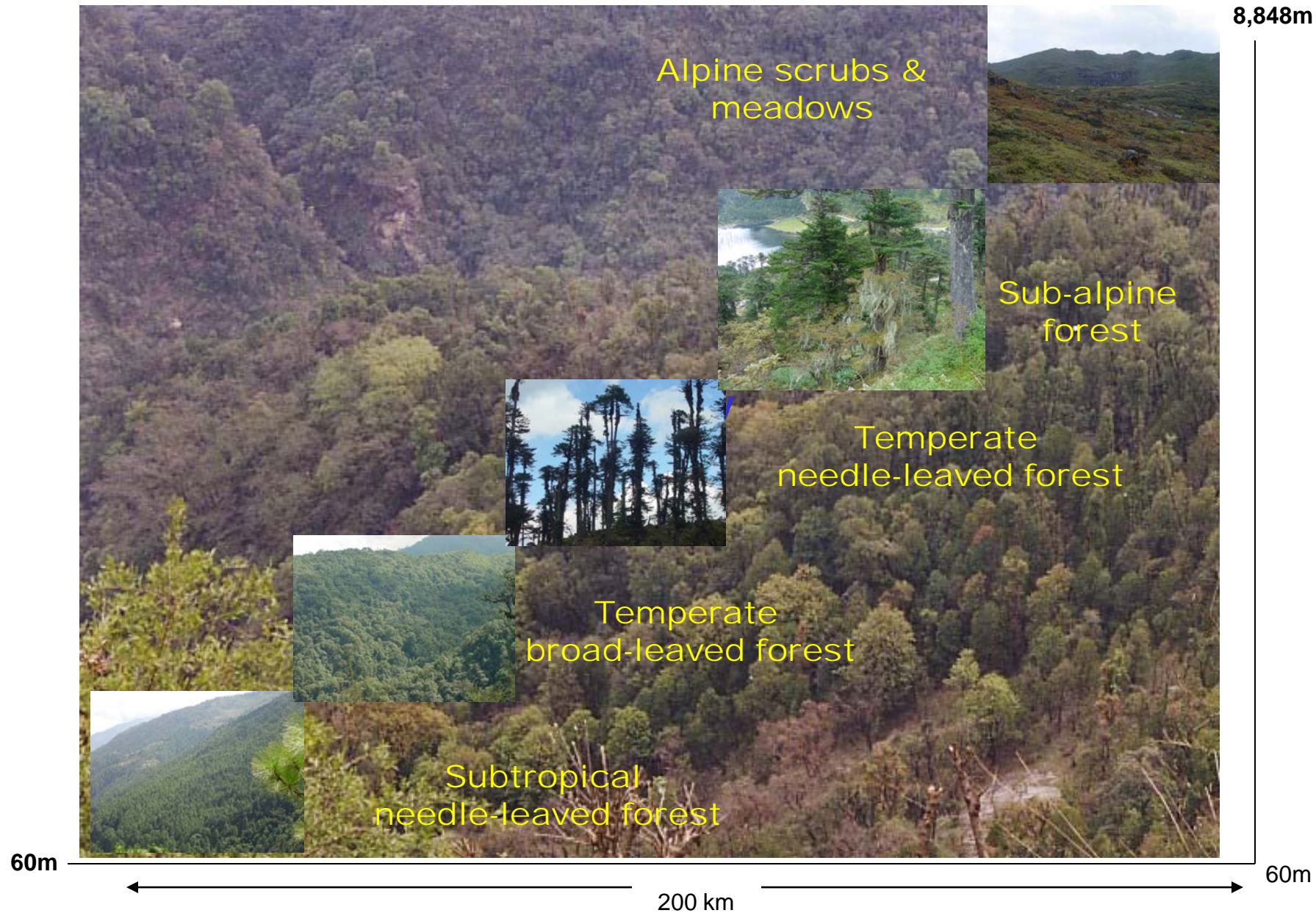
Strategies and Plans:

- ❖ Nepal Biodiversity Strategy, 2002
- ❖ Nepal Biodiversity Strategy Implementation Plan, 2006
- ❖ National Biodiversity Strategy and Action Plan (NBSAP), 2014 is under approval

Laws:

- ❖ National Parks and Wildlife Conservation Act, 1973
- ❖ Regulations related to national park, wildlife reserve, conservation area, and buffer zone

Range of Floral Biodiversity



Range of Faunal Biodiversity

8,848m

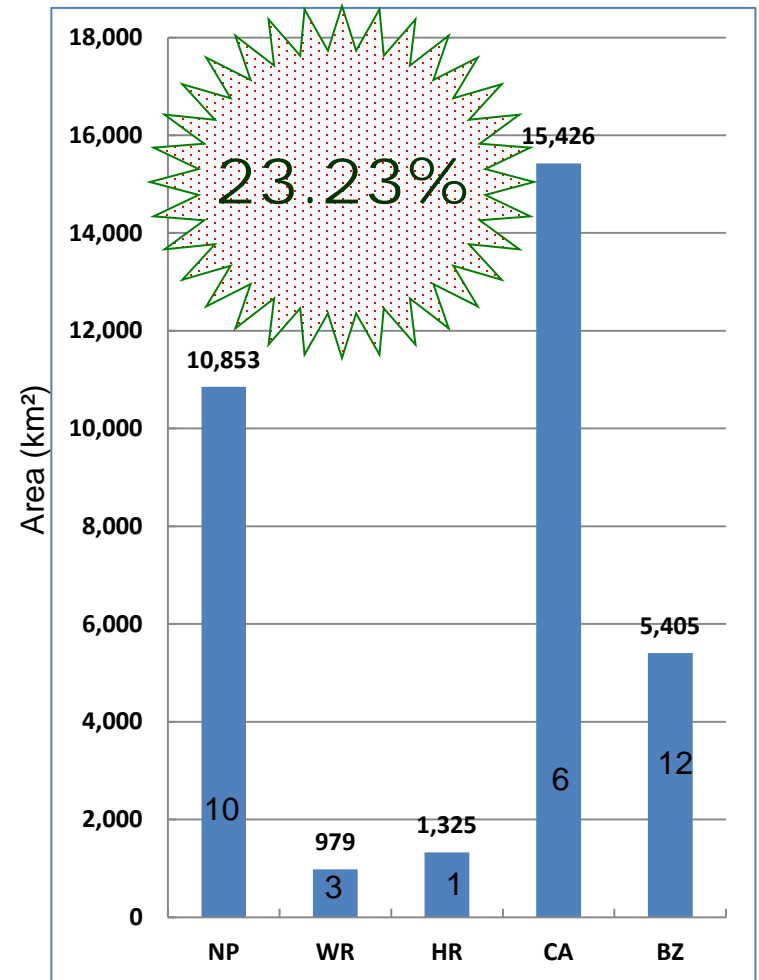
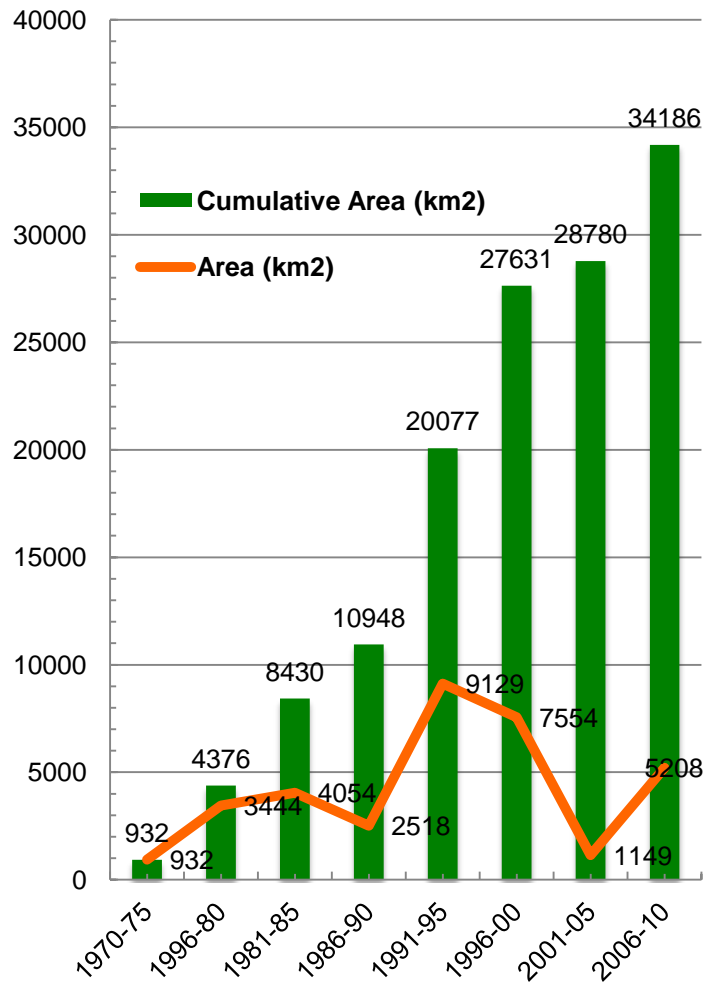


60m

200 km

60m

PA Establishment Trend in Nepal



Security Responsibility

Involvement of National Army in PA Security

- ❖ Security responsibility since 1975
- ❖ 6 Battalion
- ❖ 8 Sub-Battalion

Protected Area without Army

- ❖ Makalu Barun National Park
- ❖ Dhorpatan Wildlife Reserve
- ❖ 6 Conservation Areas

Working Approaches



- ❖ Periodic Planning (5 Year Management Plan)
- ❖ Integration Conservation and Development
- ❖ Both Species and Ecosystem conservation
- ❖ Landscape level program
- ❖ Ecotourism and livelihood improvement
- ❖ Capacity Building of Local Communities through Buffer Zone programs
- ❖ Multi-stakeholder partnership
- ❖ International and trans-boundary cooperation

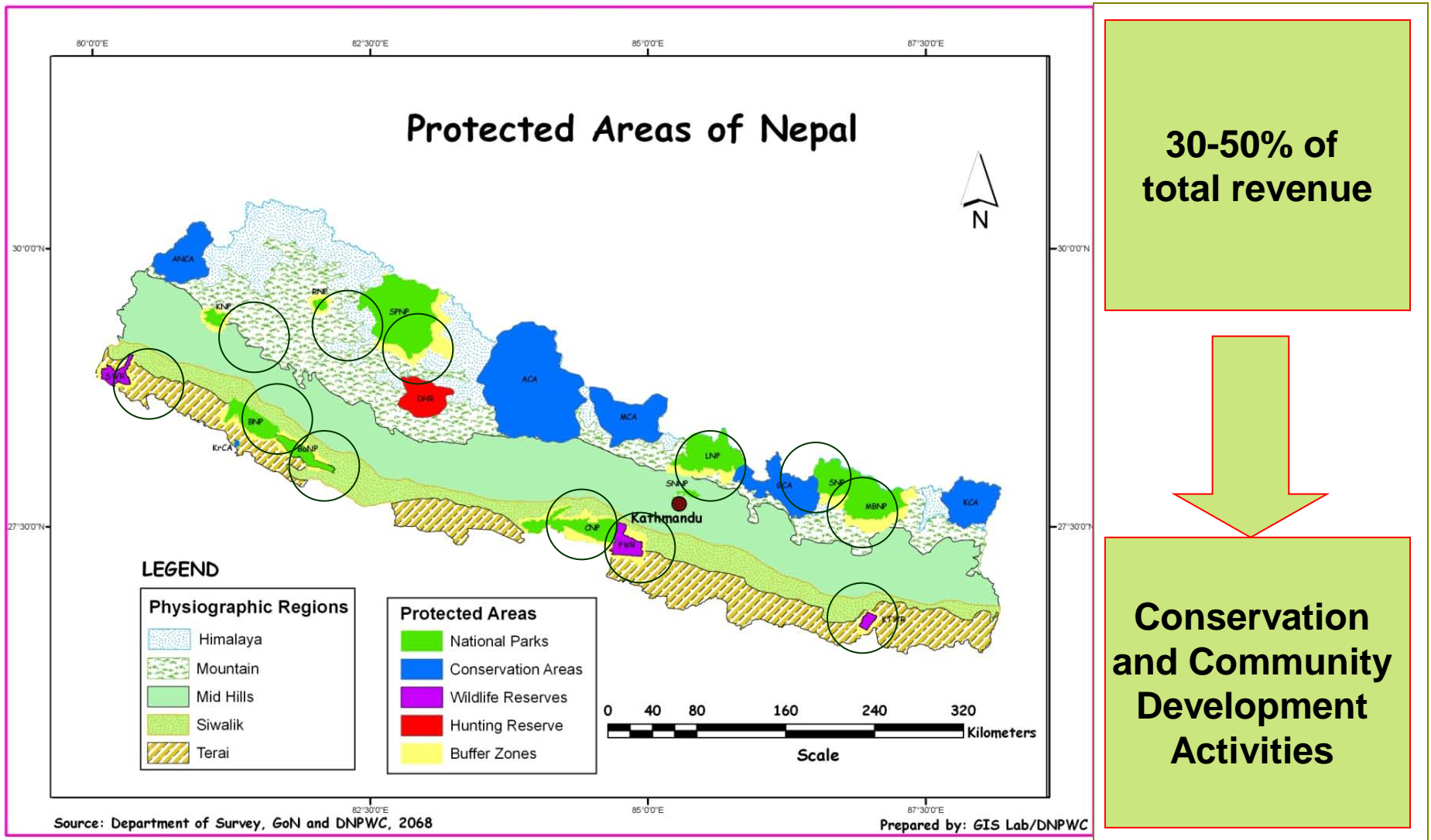
Species Conservation Action Plans

Tiger,
Rhino,
Elephant,
Snow Leopard, and
Vulture

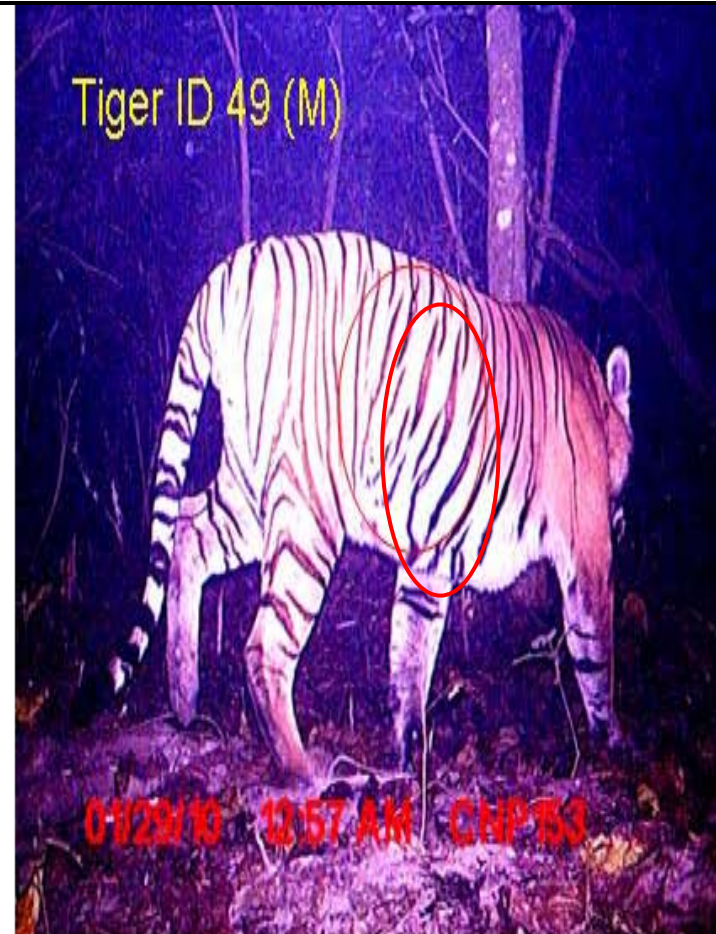
Activities

- **Habitat (Grass land, Wetland) management**
- **Control of poaching and illegal WL trade**
- **Ecotourism development**
- **Research and monitoring**
- **Buffer Zone and livelihood improvement of local communities**
- **Conservation education and awareness**
- **Trans-boundary coordination meetings**
- **Establishing WL breeding center (Elephant, Crocodile, Vulture)**

Involvement of Buffer Communities



Research and Monitoring



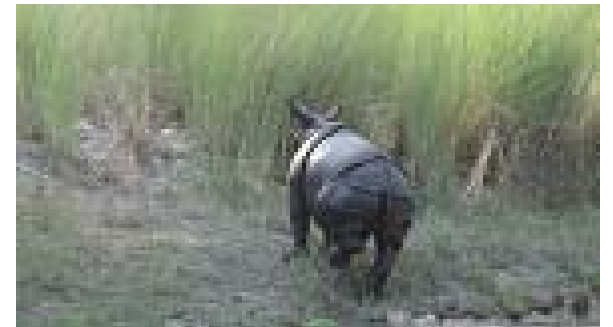
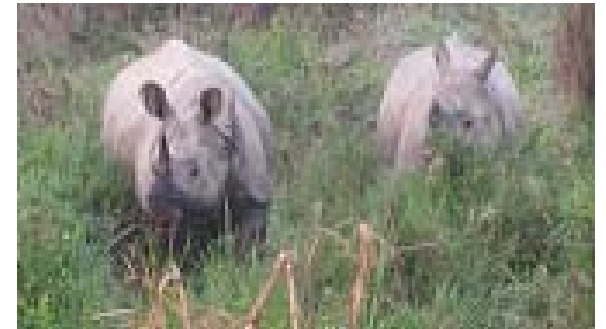
Tiger Survey Results - 2013

SN	Protected Area	Estimated Population			Density/100 km ²	
		Mean	SD	95% CI	Density	SD
1	Parsa WR	7	2.9	4-13	0.65	0.3
2	Chitwan NP	120	10.6	98 - 139	3.84	0.3
3	Banke NP	4	1.2	3-7	0.16	0.1
4	Bardia NP	50	2.85	45-55	3.38	0.2
5	Shuklaphanta WR	17	2.27	13-21	3.4	0.4
	TOTAL	198		163 - 235		

Rhinoceros Population in Nepal



ID Based Rhino Monitoring



Population of Important WL Species

Tiger 198



Black buck 274



Wild buffalo 237



Elephant 107-145



Gaur 333



Swamp Deer 1743



Rhino 534



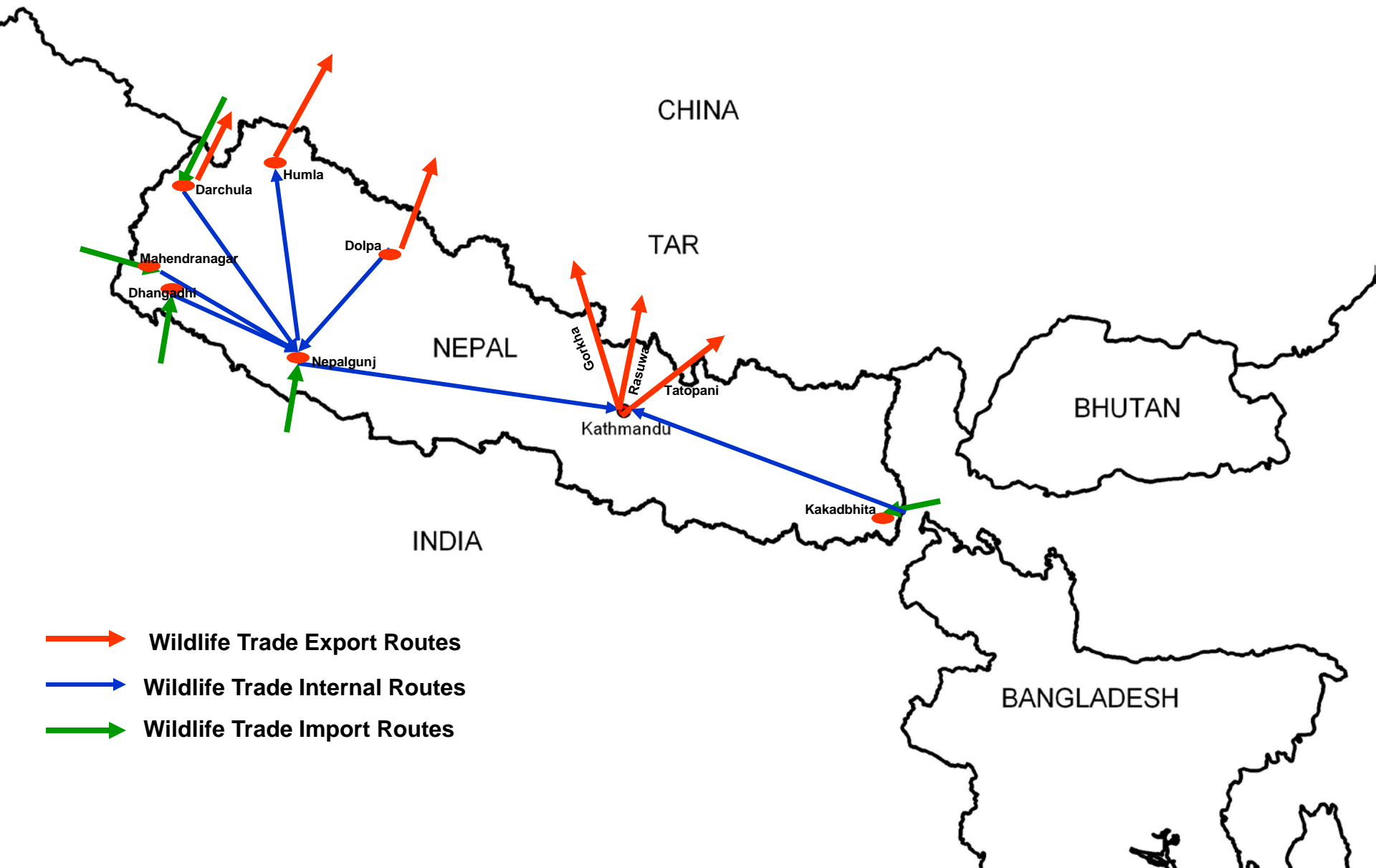
Crocodile 102



International Obligations

- ❖ **Ramsar Convention 1971**
- ❖ **Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) 1973**
- ❖ **World Heritage (UNESCO)-1978**
- ❖ **Convention of Biological Diversity, 1992**
- ❖ **The World Conservation (IUCN) 1978**

Trans-Boundary Issue: Poaching and Illegal Trade Control

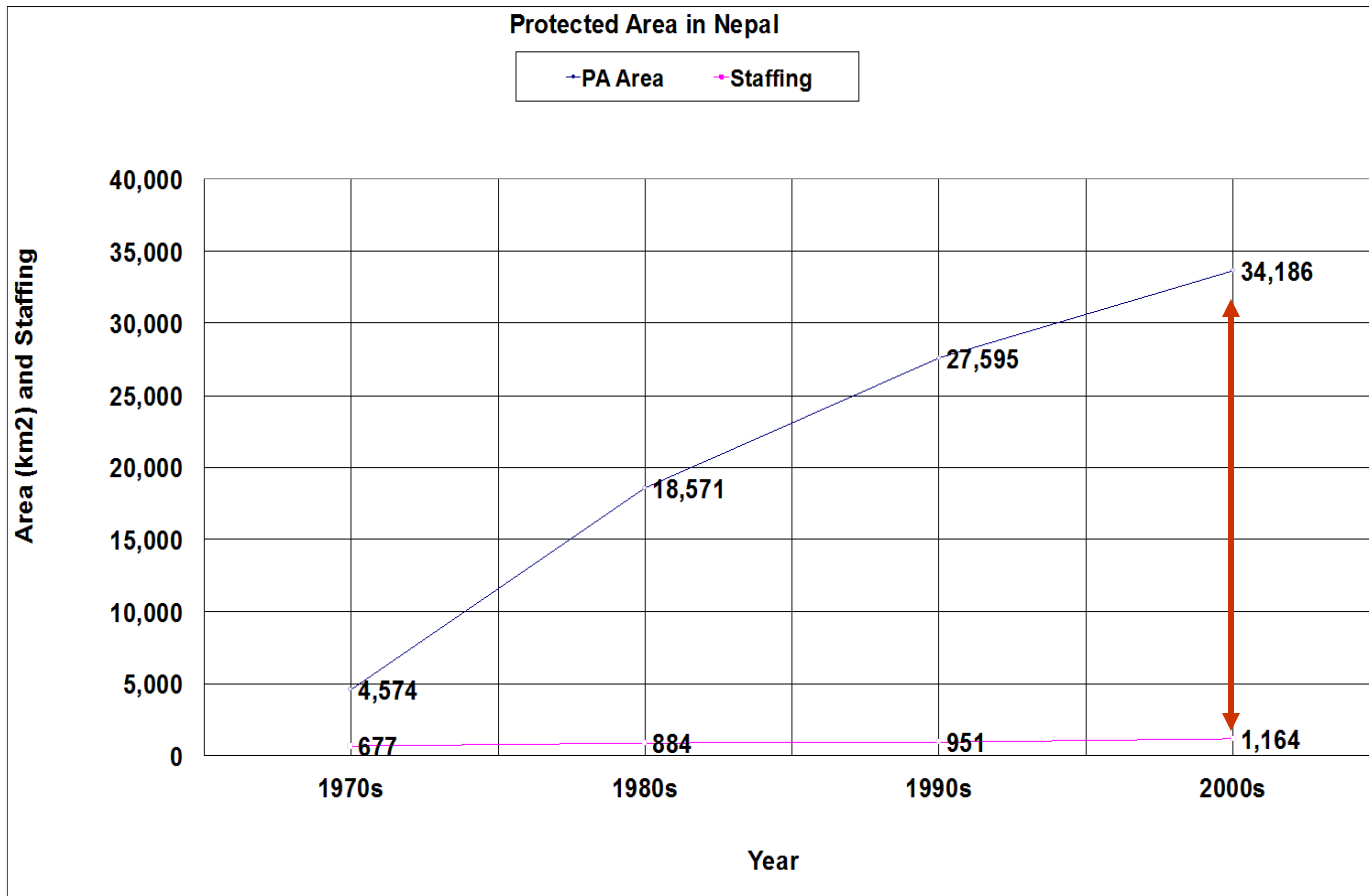


Challenges

- **Population pressure**
- **Poverty**
- **High dependency in NR**
- **Invasive Alien species**
- **Poaching and wildlife trade**
- **Balancing conservation and development**



Staffing

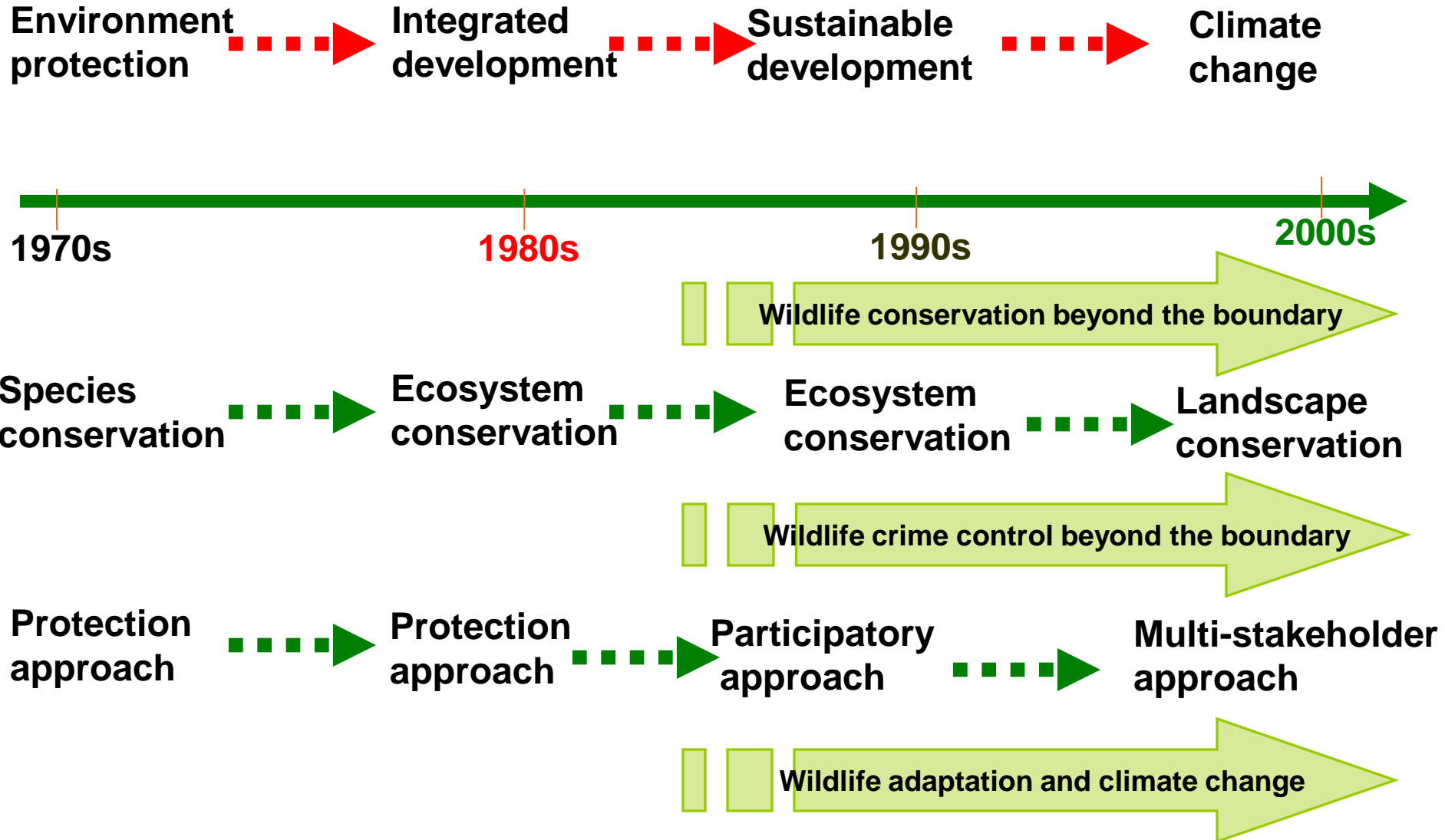


Staff/unit
area=50 km²

- Patrolling
- Monitoring
- Record keeping
- Reporting

Quality PA
Management?

Paradigm Shift in Policy



Major Challenges

- **Constantly increasing service areas**
- **Increasing human-wildlife conflicts**
- **Rescue and rehabilitate orphan and problematic animals**
- **Encroachment (CNP: Badhar jhula; PWR)**
 - **Settlement translocation (PWR and BaNP)**
 - **Land settlement commission (KTWR and SWR)**
- **Poaching and Illegal trade of wildlife parts**
- **Management of invasive alien species**
- **Over exploitation of natural resources (sand and boulders)**
- **Data storage with existing capacity**

Ways Forward

- **Outsourcing of Staff**
- **Establishment of Management Information System**
- **Adopt improved technologies**
- **Collaboration with NGOs**
- **Capacity development**
- **Address human-wildlife conflicts**

Thank You